

EXPERIENCE↗

Industrial Trainee

Jan 2023 - Feb 2023

Brainstation 23

Mirpur DOHS

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

Capture The Flag (CTF)

TryHackMe

Mentor (Later Vice-President), MIST Cyber Security Club

- Mentor at MIST Cyber Security Club
- CTF Team Lead for Leetcon CTF 2023, became 24th among 300+ teams nationally.

Stackoverflow

Provided 4 solutions

- Solution links : [1](#) [2](#) [3](#) [4](#)

Competitive programming

2020 - 2022

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

PROJECTS

Software & Autonomous System Developer 2021 - ongoing

Mars Society's University Rover Challenge (URC)

USA

Anatolian Rover Challenge (ARC)

UKET, Turkey

Achievements:

- Developed an autonomous rover system using software & communication team for URC-2021 competition which became **champion globally beating 88 teams** in SAR and finally 36 teams in the final [Link](#).
- Developed an autonomous rover system with software & communication team for ARC-2022 competition which **became third among 14 final contestant countries** [Link](#)
- Software & Autonomous Team Lead For URC-2023, became 2nd in Asia in SAR stage.
- Software & Autonomous Team Lead For ARC-2023, became 2nd in Asia & 5th globally.

Pretrained CNN-based Dog Classifier | [Code](#)

Tech Stack [Python, ResNET, VGG16](#)

Bus Counter Management System Using JavaFX | [Code](#)

Tech Stack [Swing, JavaFX, Java](#)

Military Communication Equipment Repair and Issuing of Spare Parts Management System | [Code](#)

Tech Stack [Web Development, HTML, CSS, JS, PHP, OracleDB](#)

Simple weight machine using HX711 and Arduino | [Code](#)

Tech Stack [Arduino, IOT, HX711 sensor](#)

SoccerBot

Tech Stack [Arduino, C++](#)

DekhboKinbo | [Code](#)

Tech Stack [C#, .NET Core MVC, Entity](#)

Alumni Information Management System | [Code](#)

Tech Stack [C#, MySQL](#)

Blockchain-based Land Record management system with biometric authentication | [Code for contract deployment](#) | [Code for frontend and database](#)

Tech Stack [Blockchain, Django, Arduino, IOT](#)

RESEARCH & PUBLICATIONS↗

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images. [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification.
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

EDUCATION↗

B.Sc in Computer Science and Engineering

2020 - 2024

Military Institute of Science and Technology

Higher Secondary School Certificate

2017 - 2019

Barishal Cadet College

SKILLS

Language

Python, C, C++, Git,  $\LaTeX$ , C#, Bash, PHP, JavaScript

Frontend

HTML5, CSS, JS, Bootstrap

Backend

Flask, Django

Database

MySQL, Firebase

IOT & Robotics

Arduino, Raspberry PI, Jetson Nano & Xavier, LIDAR, ZED-Stereo Cam, ESP-32, PX4 (Pixhawk), ROS, ROS2, MAVROS  
Flutter, Dart

App Development

Soft Skills

English (business), Bengali (business), Public Speaking, Extempore Speech

Pentesting Tools & OS

Burp Suite, NMap, Metasploit, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS

Other

Linux, PyTorch, TensorFlow, Git, Docker, Microsoft Excel, Microsoft Word, Microsoft PowerPoint